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ABSTRACT

The present study investigated the reliability and validity of scores from the Child Abuse Potential (CAP) Inventory. The CAP is a screening device for physical abuse potential in adults; it is a self-administered test written on a third-grade reading level. Subjects were 113 mothers, including 53 (46.9%) mothers of young children with handicaps, and 60 (53.1%) mothers of young children without identified handicaps. Analyses of CAP validity scales suggested that the Random Response subscale could be improved by omitting selected items. Although total CAP scores had an impressive alpha coefficient (0.91), consistent with those reported in previous research, some short subscales had unacceptable coefficients. The factor structure underlying responses was interpretable, but different in some respects from results reported in previous studies. One table presents the varimax rotated solution of the CAP, and three appendices list details of the factor analysis. A 13-item list of references is included. (Author/SLD)

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The Measurement Integrity Of Data Collected Using The Child Abuse Potential Inventory

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Abstract

The present study investigated the reliability and validity of scores from the Child Abuse Potential (CAP) Inventory. Subjects were 113 mothers, including 53 (46.9%) mothers of young children with handicaps and 60 (53.1%) mothers of young children without identified handicaps. Analyses of CAP validity scales suggested that the Random Response subscale could be improved by omitting selected items. Although total CAP scores had an impressive alpha coefficient (.91), consistent with those reported in previous research, some short subscales had unacceptable coefficients. The factor structure underlying responses was interpretable, but different in some respects from results reported in previous studies.

Measurement integrity is crucial to sound scientific inquiry. Generally, researchers take considerable care with the selection of instruments to be used to collect data and examine reports of reliability and validity offered by the author(s) of the instrument or by others. This is important.

However, it is equally important that researchers empirically evaluate the measurement integrity of data collected in each study before engaging in substantive analyses. This later necessity is underrecognized in contemporary practice (Thompson, in press-b).

The importance of confirming measurement integrity for data in hand arises from the fact, notwithstanding misconceptions to the contrary (Thompson, in press-a), that it is **data**, not instruments, which may be appropriately characterized as reliable or unreliable and as valid or invalid. Data collected from given subjects on given occasions possess psychometric properties, not instruments.

As Rowley (1976, p. 53) notes, "It needs to be established that an instrument itself is neither reliable nor unreliable." As Sax (1980, p. 261) explains,

> It is more accurate to talk about the reliability of <u>measurements</u> (data, scores, and observations) than the reliability of <u>tests</u> (questions, items, and other tasks). Tests cannot be stable or unstable, but observations can. Any reference to the "reliability of a test" should always be interpreted to mean the "reliability of measurements or observations [i.e., a particular set of data]

derived from a test."

Furthermore, it is the conclusions and inferences which are drawn as a consequence of the results of data analyses that require validation. Incorrect conclusions will be extrapolated from studies which employ inadequate measures. As Cronbach (1971, p. 443) stated,

> narrowly considered, validation is the process of examining the accuracy of a specific prediction or inference made from a test score... More broadly, validation examines the soundness of all the interpretations of a test.

Additionally, it is important to note that validity is a matter of degree, not an absolute.

One implication of the thoughtful realization that reliability and validity are characteristic of data (and not of tests) is that the serious researcher generally should empirically evaluate the measurement integrity of data in hand. It is generally best to ground findings in empirical results rather than merely a presumption that the data in hand will be as sound as the data collected in previous measurement studies, even when the subjects in a given study appear to be similar to the subjects employed in previous measurement integrity research.

Of course, if particular instruments repeatedly facilitate the collection of reliable and valid data, then researchers can vest more confidence in the utility of the instrument with which the data were ascertained. Thus, the consequence of empirically

evaluating data at hand is two-fold: (a) more credence can be given to the results which emerge from the substantive analyses and (b) additional cumulative verification of the usefulness of the instrument is documented for future researchers.

In the current study, the measurement integrity of scores obtained on the Child Abuse Potential (CAP) Inventory (Milner, 1986) was investigated. The CAP was designed by Milner as a screening device for physical abuse potential in adults. It is a self-administered test written on a third grade reading level.

Subjects

The CAP was administered to 113 mothers, 53 (46.9%) mothers of young children with handicaps and 60 (53.1%) mothers of young children without identified handicaps. These two subject groups were included as part of a substantive inquiry regarding the effects on family functioning of children with handicaps.

Seventy-three (64.6%) of the mothers were white, 38 (33.6%) were Afro-American, one (0.9%) was Hispanic, an one (0.9%) was an American Indian. Seventy-eight (69.0%) of the mothers were married, 22 (19.5%) were single, nine (8.0%) were divorced, and four (3.5%) were separated. Mothers ranged in age from 19 to 44 years old, with a mean age of 30.75 years (*SD*=5.66); levels of education ranged from completion of ninth grade to completion of course work beyond the master's degree, with the most common highest level of education being completion of twelfth grade. Monthly family income was diverse. The standard deviation was $1,786. Monthly income ranged from $138 to $10,000, with a mean of

$2,296 and a mode of $4,000. Twenty-four (21.2%) families received government financial assistance.

Mothers were asked to volunteer to participate in the study through child care centers, early intervention programs for children with handicaps, church organizations, parent groups, and other informal sources. The importance of conducting child abuse research with nonclinical samples is receiving increased recognition as researchers report the prevalence of histories of abuse among nonclinical samples. As Berger, Knutson, Mehm, and Perkins (1988) reported, the child abuse histories of nonclinical samples support the contention that the physical abuse of children is widespread and not restricted to groups identified on the basis of clinical service or social deviance. Therefore, a diverse sample was employed in the present study, so that results could be generalized more broadly.

Preliminary Integrity Analyses

The Lie Scale and the Random Response Scale developed by Milner (1986) were used as initial indicators of the psychometric quality of the data in hand. Certainly, meaningful inquiry must be grounded in honest and non-random responses. It cannot be merely assumed that subjects have provided candid responses, especially when socially sensitive issues are being investigated. Therefore, the Lie Scale and the Random Response Scale items that are embedded within the CAP measure were completed by all 113 subjects.

The mean Lie Scale score was 5.45 (SD=3.63). Scores on the Lie Scale can range from 0 to 18. Milner (1986, p. 11) suggests

that a cutoff of 7 or 8 be used with the Lie Scale, with larger cutoffs being recommended as subjects are less educated. Thus, these results suggest that the preponderance of subjects responded to the study's measure in a reasonably honest manner.

The mean score on the Random Response Scale was 2.60 (SD=1.60). Scores on the Random Response Scale can range from 0 to 18. Milner (1986, p. 11) suggests that a cutoff of 6 be used on this scale. These results suggests that subjects completed items in a systematic, nonrandom manner.

Reliability Analyses

Coefficient alpha was used to evaluate the internal consistency reliability of the CAP data in hand. As Crocker and Algina (1986, p. 121) point out, alpha can be regarded as a "lower bound" estimate of reliability. Alpha for the data collected in the current study (0.91) was high and was comparable to alpha coefficients (0.92 to 0.98) reported by Milner, Gold, and Wimberley (1986) for a variety of control and abusive groups.

Alpha coefficients for the validity check scales and the abuse subscales of the CAP were also computed. Coefficients for scores on the validity scales were .79 for the lie scale scores involving 18 items, and .21 for the random response scale scores involving 18 items.

Alpha coefficients for scores on the abuse subscales of the CAP ranged from .38 to .88. Four of the coefficients in the present study were below .55: .38, Problems with Self (6 items); .44, Unhappy (11 items); .49, Problems with Family (4 items); and

.54, Problems with Others (6 items). Scores on the remaining subscales had alphas above .80: .82, Rigidity (14 items); and .88, Distress (36 items). The alpha coefficient for the total CAP child abuse scale score (77 items) was .91.

Validity

Factor analysis was the major analytic tool used to evaluate test validity. Factor analysis is seminal to the evaluation of the validity of data in hand, as well as to construct elaboration. As Nunnally (1978, pp. 111-112) notes,

> construct validity has been spoken of as "trait validity" and "factorial validity".... Factor analysis is intimately involved with questions of validity... Factor analysis is at the heart of the measurement of psychological constructs.

Gorsuch (1983, pp. 350-351) concurs, noting that "A prime use of factor analysis has been in the development of both the theoretical constructs for an area and the operational representatives for the theoretical constructs." Similarly, Hendrick and Hendrick (1986, p. 393) note that "theory building and construct measurement are joint bootstrap operations." Factor analysis at once **both** tests measurement integrity and sheds light on underlying theory.

Factor structures underlying CAP responses suggest that the data in hand were reasonably valid. A "scree" plot of the first nine eigenvalues of the intervariable correlation matrix--associated with the principal components prior to rotation (Thompson, 1989)--suggested the existence of six factors, a finding consistent

with the previous work reported by Milner (1986).

Table 1 presents varimax rotated principle components for the 77 CAP abuse items, i.e., excluding validity scale items, after reverse scoring of selected items (Milner, 1986). Factor I included items that suggest expectations of perfection and an excessive amount of concern regarding contact with others; this factor was labelled Hypersensitivity and is similar to the factor that Milner (1986) called "Rigidity".

The second factor included items that represent the parent's negative feelings and the parent's characterizations of her life with respect to affect. Items with the largest structure coefficients included: 17. "I am often angry inside" (.66); 14. "I am a happy person" (.65); and 95. "Life often seems useless to me" (.65). This factor was labelled Disturbed and involves elements of the factors that Milner called "Distress" and "Unhappiness".

Factor III included items involving depression, including: 90. "I do not laugh very much (.68); 138. "I am often upset and do not know why" (.63); and 118. "I am often depressed" (.58). The factor was labelled Despondency and also involved elements of the factors that Milner called "Distress" and "Unhappiness".

The fourth factor consisted of items that address the parent's associations with others, and was labelled Isolation. Items associated with the factor included: 74. "These days a person doesn't really know on whom one can count" (.57); 147. "Right now, I am deeply in love"; and 100. "Other people have made my life unhappy" (.53). The factor differed somewhat from those identified

by Milner, but included elements of the factor Milner called "Problems with Others".

The fifth factor included items which assess feelings of fear, worry, rejection, and loneliness, and was labelled Anxiety. Relevant items included: 63. "I am often worried inside" (.72); 52. "I often feel worried" (.69); and 153. "I sometimes worry that my needs will not be met" (.49). The factor shares some elements with the "Distress" component identified by Milner.

Factor VI is defined by items that reflect conflict with others. The factor was labelled Discord, and is somewhat similar to the factor that Milner called "Problems with Family". Items associated with the Discord factor in the present study included: 94. "My family has problems getting along" (94); 148. "My family has many problems" (.68); and 83. "My family fights a lot" (.62).

Discussion

The integrity of scores assigned using the Child Abuse Potential measure was generally supported by these results. It was not particularly surprising that scores on the Random Response subscale did not have an especially favorable coefficient alpha (.21), given the very abstract nature of the construct being measured. However, classical item-to-total-score correlation coefficients suggested that the integrity of the scale for these data would have been considerably improved by scoring CAP items 1, 11, 16, 31, 43, 53, 58, 61, 65, 72, 89, and 114, while omitting items 27, 33, 59, 60, 116 and 119 from this validity subscale. The alpha coefficient for scores on the Lie Scale (.79) was appreciably

better, and no items in this scale had negative item-to-total-score correlation coefficients.

The reliability results for the substantive subscales appeared to larger be a function of the number of items associated with the subscales suggested by Milner (1986). This result is somewhat expected. Variance drives reliability, and scores on scales with more items tend to be more reliable, since scores on such scales tend to be more variable.

The relatively small alpha coefficients, and the inability to reproduce during factor analysis some of the subscales suggested by Milner (1986), both seem to militate against using subscale scores from the CAP. Total abuse scores, based on 77 items, do seem to have sufficient reliability (α=.91) to warrant consideration for use in research and clinical interventions.

The factors isolated in the present study were interpretable, and appear to be measure more abstract constructs than the structure suggested by Milner (1986), who identified subscales such as "Problems with Self" (6 items), "Problems with Family" (4 items), and "Problems with Others" (6 items). And each factor in the present study was marked by quite a few salient items. However, the factor structure underlying CAP Inventory responses does raise intriguing questions, and should be further explored in future research.

References

Berger, A. M., Knutson, J. F., Mehm, J. G., & Perkins, K. A. (1988). The self-report of punitive childhood experiences of young adults and adolescents. Child Abuse & Neglect, 12, 251-262.

Crocker, L., & Algina, J. (1986). Introduction to classical and modern test theory. New York: Holt, Rinehart, and Winston.

Cronbach, L. J. (1971). Test validation. In R. L. Thorndike (Ed.), Educational Measurement (2nd ed.). Washington, D.C.: American Council on Education.

Gorsuch, R. L. (1983). Factor analysis (2nd ed.). Hillsdale, NJ: Erlbaum.

Hendrick, C., & Hendrick, S. (1986). A theory and method of love. Journal of Personality and Social Psychology, 50, 392-402.

Milner, J. S. (1986). Manual for the Child Abuse Potential Inventory (2nd ed.). DeKalb, IL: Psytec.

Milner, J. S., Gold, R. G., & Wimberley, R. C. (1986). Prediction and explanation of child abuse: Cross-validation of the child abuse potential inventory. Journal of Consulting and Clinical Psychology, 54, 865-866.

Nunnally, J (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.

Rowley, G. L. (1976). The reliability of observational measures. American Educational Research Journal, 13, 51-59.

Sax, G. (1980). Principles of educational and psychological measurement and evaluation (2nd ed.). Belmont, CA: Wadsworth.

Thompson, B. (1989). Prerotation and postrotation eigenvalues should not be confused: A reminder. Measurement and Evaluation in Counseling and Development, 22, 114-116.

Thompson, B. (in press-a). Review of Generalizability theory: A primer by R.J. Shavelson & N.W. Webb. Educational and Psychological Measurement, 51.

Thompson, B. (in press-b). Two and one-half decades of leadership in measurement and evaluation. Journal of Counseling and Development.

Table 1
Varimax Rotated Solution for the CAP
(n=113; v=77)

	Factor					
No.	I	II	III	IV	V	VI
127	.72	-.20	.13	-.05	-.01	.09
108	.69	.24	.08	.13	-.13	.18
130	.69	-.09	-.08	-.04	-.08	.08
54	.66	.14	-.12	.10	-.17	.11
80	.66	.02	.14	-.05	.11	-.05
122	.65	.09	.07	.13	.02	-.06
26	.65	.04	-.21	.01	-.02	.05
24	.62	.11	-.07	.15	.00	.14
19	.59	.18	-.13	.16	.02	.06
68	.59	-.06	.10	-.08	-.03	.16
115	.58	.10	.09	.07	.16	.01
132	.51	-.10	.25	-.08	.22	.11
78	.48	.11	.35	.35	.05	.11
129	.46	.08	.02	.06	.03	-.13
109	.45	.30	.33	.07	.35	-.02
45	.42	.20	-.10	.19	.00	.33
128	.42	-.13	-.01	.37	.18	.21
113	.42	-.18	-.05	.31	.10	.31
98	.40	.33	.36	.28	.22	.13
77	-.25	-.04	.13	.21	-.12	-.05
17	.19	.66	.29	-.05	.26	.03
14	-.02	.65	.19	.02	-.02	.20
95	.06	.65	.09	.17	.02	.19
75	.12	.63	.03	.20	-.08	-.01
23	.06	.62	.21	.33	.36	.02
143	.13	.57	.28	.47	.24	.10
103	.14	.56	.02	.28	.21	.42
107	.22	.53	.22	.14	-.10	.09
145	.09	.52	.33	.50	.35	-.04
5	-.07	.52	.21	.25	.07	.16
120	.01	.51	.51	-.08	.28	.00
69	-.04	.50	.08	-.03	.09	.18
25	.08	.49	.17	-.03	.41	-.06
22	.16	.42	.36	-.04	.34	.17
56	.36	.40	.27	-.18	.22	-.08
90	-.05	.16	.68	.11	-.10	.07
138	.12	.20	.63	.18	.15	.07
118	.12	.48	.58	.10	.08	.27
105	.16	.35	.56	.07	.30	.00
154	.10	.18	.52	.22	.44	.02
152	-.09	.08	.52	.20	-.15	.06
9	-.02	.35	.52	.18	.07	.14
99	.03	.44	.49	.20	.02	.12

29	.10	.07	.42	.01	.06	.29
73	-.10	.18	.34	.25	.30	.15
74	.39	.06	.21	.57	.00	.06
147	.10	.25	-.07	.54	-.16	-.17
100	.15	.20	.36	.53	.22	.03
141	-.02	.23	-.09	.50	-.02	.10
47	-.14	.02	.45	.50	.18	.15
93	-.03	.11	.29	.45	.20	.24
13	.14	.02	.14	.45	-.01	.11
18	.00	.21	.27	.37	.34	.05
81	.07	-.03	.13	.34	-.05	.04
32	.33	.12	.00	.33	.06	-.12
7	.06	.18	.25	.29	.04	.17
39	.06	.00	.03	.22	.21	-.06
63	.11	.20	.19	.03	.72	-.04
52	.09	.18	.24	.09	.69	.10
153	.03	.13	-.14	.27	.49	.24
28	-.07	.12	-.02	-.02	.48	.16
49	-.11	.12	-.02	.32	.46	.14
102	-.14	-.14	.32	.11	.42	.19
134	-.04	.02	.04	.20	-.31	-.07
3	-.03	.31	-.10	-.04	.31	-.01
76	.15	-.10	-.01	-.07	.28	.19
94	.12	.10	.18	.05	.04	.71
148	.05	.12	.25	.02	.05	.68
83	.07	.28	.23	-.01	-.03	.62
41	.30	.25	.03	.14	.19	.51
111	-.11	.17	.41	.06	.07	.44
38	.22	.16	-.19	-.04	.15	.42
151	-.03	.08	.32	.35	.15	.38
67	.12	.08	.04	.32	.29	.38
112	.21	.16	.16	.04	.28	.37
36	.08	.27	-.28	.15	.10	.30
84	.00	-.07	.10	.05	.20	.26

Appendix A
Item Discrimination, Alpha-if-Deleted, and Alpha Coefficients for the CAP
(n=113)

Item	Corr Disc a	alpha Del	alpha	Corr Disc b	alpha Del	alpha
PROBOTHR				TOTAL		
13	0.39	0.50		0.33	0.91	
67	0.36	0.45		0.43	0.91	
74	0.46	0.43		0.49	0.91	
100	0.56	0.51		0.58	0.91	
129	0.07	0.56		0.22	0.91	
151	0.40	0.43	0.54	0.43	0.91	
PROBFAML						
39	0.05	0.58		0.19	0.91	
83	0.49	0.17		0.43	0.91	
94	0.64	0.51		0.43	0.91	
148	0.54	0.12	0.49	0.42	0.91	
PROBSELF						
3	0.12	0.39		0.16	0.91	
45	0.40	0.33		0.41	0.91	
69	0.09	0.39		0.32	0.91	
76	0.15	0.37		0.14	0.91	
113	0.47	0.29		0.28	0.91	
128	0.66	0.23	0.38	0.38	0.91	
UNHAPPY						
14	0.42	0.43		0.44	0.91	
38	-0.01	0.48		0.25	0.91	
75	0.33	0.35		0.39	0.91	
77	-0.01	0.53		-0.07	0.91	
81	0.19	0.42		0.19	0.91	
90	0.37	0.37		0.37	0.91	
107	0.31	0.40		0.49	0.91	
134	0.01	0.45		-0.04	0.91	
141	0.19	0.41		0.28	0.91	
147	0.33	0.39		0.23	0.91	
152	0.32	0.35	0.44	0.24	0.91	
RIGIDITY						
7	0.11	0.83		0.38	0.91	
19	0.53	0.81		0.36	0.91	
24	0.55	0.81		0.36	0.91	
26	0.60	0.80		0.21	0.91	
32	0.31	0.83		0.28	0.91	
54	0.61	0.81		0.30	0.91	
68	0.50	0.82		0.25	0.91	
80	0.54	0.81		0.33	0.91	
108	0.68	0.82		0.51	0.91	
115	0.51	0.83		0.38	0.91	
122	0.58	0.81		0.34	0.91	
127	0.66	0.80		0.25	0.91	

130	0.59	0.80		0.18	0.91
132	0.43	0.83	0.83	0.34	0.91
DISTRESS					
5	0.49	0.88		0.47	0.91
9	0.56	0.88		0.52	0.91
17	0.60	0.88		0.57	0.91
18	0.48	0.88		0.46	0.91
22	0.61	0.88		0.57	0.91
23	0.71	0.88		0.65	0.90
25	0.48	0.88		0.42	0.91
28	0.28	0.88		0.22	0.91
29	0.35	0.88		0.35	0.91
36	0.16	0.89		0.22	0.91
41	0.46	0.88		0.51	0.91
47	0.46	0.88		0.43	0.91
49	0.39	0.88		0.33	0.91
52	0.57	0.88		0.51	0.91
56	0.46	0.88		0.44	0.91
63	0.54	0.88		0.48	0.91
73	0.45	0.88		0.43	0.91
78	0.50	0.88		0.58	0.91
84	0.18	0.89		0.16	0.91
93	0.49	0.88		0.47	0.91
95	0.53	0.88		0.51	0.91
98	0.67	0.87		0.68	0.90
99	0.59	0.88		0.54	0.91
102	0.28	0.89		0.23	0.91
103	0.65	0.88		0.66	0.90
105	0.61	0.88		0.58	0.91
109	0.55	0.89		0.57	0.91
111	0.40	0.88		0.39	0.91
112	0.41	0.88		0.45	0.91
118	0.67	0.88		0.65	0.90
120	0.56	0.88		0.50	0.91
138	0.58	0.88		0.55	0.91
143	0.73	0.87		0.71	0.90
145	0.78	0.88		0.73	0.91
153	0.38	0.88		0.36	0.91
154	0.60	0.88	0.88	0.55	0.91

Validity Check Scales

RANDRESP		
1	0.09	0.19
11	0.01	0.21
16	0.29	0.09
27	-0.13	0.31
31	0.36	0.09
33	-0.15	0.28
43	0.19	0.14
53	0.10	0.19
58	0.27	0.15
59	-0.02	0.22

60	-0.11	0.29	
61	0.16	0.20	
65	0.03	0.22	
72	0.03	0.21	
89	0.08	0.19	
114	0.30	0.13	
116	-0.07	0.26	
119	-0.08	0.23	0.21
LIESCALE			
12	0.44	0.78	
34	0.50	0.77	
35	0.11	0.80	
44	0.43	0.78	
46	0.56	0.77	
57	0.46	0.78	
62	0.54	0.77	
66	0.24	0.79	
70	0.12	0.79	
106	0.15	0.80	
110	0.27	0.79	
146	0.31	0.79	
149	0.41	0.78	
150	0.43	0.78	
155	0.50	0.77	
157	0.27	0.79	
159	0.53	0.77	
160	0.30	0.79	0.79
INCONSIS			
I1	0.11	0.53	
I2	0.28	0.49	
I3	0.15	0.52	
I4	0.17	0.52	
I5	-0.07	0.57	
I6	0.14	0.52	
I7	0.10	0.53	
I8	0.22	0.51	
I9	0.40	0.47	
I10	0.19	0.51	
I11	0.08	0.53	
I12	0.00	0.54	
I13	0.20	0.51	
I14	0.11	0.52	
I15	0.39	0.49	
I16	0.28	0.50	
I17	0.22	0.51	
I18	0.21	0.51	
I19	0.10	0.54	
I20	0.16	0.52	0.53
FAKNGOOD			
12	0.43	0.72	
34	0.44	0.72	
35	0.09	0.74	

44	0.48	0.72	
46	0.50	0.72	
57	0.42	0.72	
62	0.48	0.72	
66	0.27	0.73	
70	0.09	0.74	
106	0.25	0.73	
110	0.25	0.73	
146	0.37	0.73	
149	0.39	0.72	
150	0.38	0.72	
155	0.52	0.72	
157	0.25	0.73	
159	0.41	0.72	
160	0.26	0.73	
1	0.29	0.73	
11	-0.02	0.74	
16	0.16	0.74	
27	-0.37	0.77	
31	0.16	0.74	
33	-0.22	0.75	
43	0.21	0.74	
53	0.02	0.74	
58	0.21	0.74	
59	0.15	0.74	
60	0.07	0.74	
61	0.15	0.74	
65	0.49	0.72	
72	0.20	0.74	
89	-0.06	0.75	
114	0.19	0.74	
116	0.10	0.74	
119	-0.05	0.74	0.74

FAKNBAD / RRINDEX

1	0.14	0.42
11	-0.02	0.43
16	0.20	0.41
27	-0.17	0.48
31	0.18	0.41
33	-0.13	0.46
43	-0.02	0.45
53	-0.02	0.44
58	0.28	0.41
59	0.17	0.42
60	-0.14	0.47
61	0.11	0.43
65	0.17	0.41
72	0.11	0.42
89	-0.02	0.44
114	0.21	0.41
116	0.04	0.43
119	-0.06	0.44

I1	0.06	0.43	
I2	0.18	0.41	
I3	0.15	0.42	
I4	0.18	0.41	
I5	0.12	0.42	
I6	0.08	0.43	
I7	0.31	0.40	
I8	0.27	0.39	
I9	0.30	0.39	
I10	0.19	0.41	
I11	0.07	0.43	
I12	0.03	0.43	
I13	0.10	0.42	
I14	0.08	0.43	
I15	0.27	0.40	
I16	0.14	0.42	
I17	0.15	0.42	
I18	0.03	0.43	
I19	0.06	0.43	
I20	0.13	0.42	0.43

[a]Corrected item discrimination, alpha-if-delete item, and alpha coefficients for scores on subscales.

[b]Corrected item discrimination, alpha-if-delete item, and alpha coefficients for scores on the total scale.

Appendix B
Scree Plot for the CAP
(n=113; v=77/160)

Appendix C
Salient CAP Items for Varimax-Rotated Principal Components
(n=113; y=77)

Exp	Str	No.	Item
			Factor I
2	.73	127	Children should always be neat.
2	.69	108	A home should be spotless.
2	.69	130	Children should never cause trouble.
2	.66	54	A child should never talk back.
2	.66	80	Children should be quiet and listen.
2	.65	122	A good child keeps his toys neat and orderly.
2	.65	26	Children should never disobey.
2	.62	24	Little boys should never learn sissy games.
2	.59	19	Everything in a home should always be in its place.
2	.59	68	Children should stay clean.
2	.58	115	Children should be seen and not heard.
2	.51	132	A child needs very strict rules.
1	.48	78	Other people do not understand how I feel.
6	.46	129	A parent must use punishment if he wants to control a child's behavior.
1	.45	109	I am easily upset by my problems.
4	.43	45	I have a child who is bad.
4	.42	128	I have a child who is slow.
4	.42	113	My child has special problems.
1	.40	98	People do not understand me.
6	.39	74	These days a person doesn't really know on whom one can count.
1	.36	56	I am often easily upset.
2	.33	32	My telephone number is unlisted.
1	.30	41	Things have usually gone against me in life.
			Factor II
1	.66	17	I am often angry inside.
3	.65	14	I am a happy person.
1	.65	95	Life often seems useless to me.
3	.63	75	My life is happy.
1	.62	23	I am often lonely inside.
1	.57	143	I often feel very alone.
1	.56	103	I have many personal problems.
3	.53	107	My life is good.
1	.52	145	I often feel alone.
1	.52	5	I am a confused person.
1	.51	120	I am often upset.
4	.50	69	I have a child who gets into trouble a lot.
1	.49	25	I often feel very frustrated.
1	.48	118	I am often depressed.
1	.44	99	I often feel worthless.
1	.42	22	I often feel rejected.
1	.40	56	I am often easily upset.
1	.36	9	I am often mixed up.

1	.35	105	I often feel very upset.
1	.33	98	People do not understand me.
4	.31	3	I have always been strong and healthy.
1	.30	109	I am easily upset by my problems.

Factor III

3	.68	90	I do not laugh very much.
1	.63	138	I am often upset and do not know why.
1	.58	118	I am often depressed.
1	.56	105	I often feel very upset.
1	.52	154	I often feel afraid.
3	.52	152	I laugh some almost every day.
1	.52	9	I am often mixed up.
1	.51	120	I am often upset.
1	.49	99	I often feel worthless.
1	.45	47	I sometimes feel worthless.
1	.42	29	I sometimes wish that my father would have loved me more.
1	.41	111	My parents did not understand me.
6	.36	100	Other people have made my life unhappy.
1	.36	22	I often feel rejected.
1	.36	98	People do not understand me.
1	.35	78	Other people do not understand how I feel.
1	.34	73	I find it hard to relax.
1	.33	145	I often feel alone.
1	.33	109	I am easily upset by my problems.
1	.32	102	Sometimes I do not know why I act as I do.
6	.32	151	Other people have made my life hard.

Factor IV

6	.57	74	These days a person doesn't really know on whom one can count.
3	.54	147	Right now, I am deeply in love.
6	.53	100	Other people have made my life unhappy.
3	.50	141	I have a good sex life.
1	.50	145	I often feel alone.
1	.50	47	I sometimes feel worthless.
1	.47	143	I often feel very alone.
1	.45	93	I have fears no one knows about.
6	.45	13	You cannot depend on others.
1	.37	18	Sometimes I feel all alone in the world.
4	.37	128	I have a child who is slow.
6	.35	151	Other people have made my life hard.
1	.35	78	Other people do not understand how I feel.
3	.34	81	I have several close friends in my neighborhood.
2	.33	32	My telephone number is unlisted.
1	.33	23	I am often lonely inside.
6	.32	67	People have caused me a lot of pain.
1	.32	49	I am sometimes very sad.
4	.31	113	My child has special problems.

Factor V

1	.72	63	I am often worried inside.
1	.69	52	I often feel worried.
1	.49	153	I sometimes worry that my needs will not be met.
1	.48	28	Sometimes I fear that I will lose control of myself.
1	.46	49	I am sometimes very sad.
1	.44	154	I often feel afraid.
1	.42	102	Sometimes I do not know why I act as I do.
1	.41	25	I often feel very frustrated.
1	.36	23	I am often lonely inside.
1	.35	145	I often feel alone.
1	.35	109	I am easily upset by my problems.
1	.34	18	Sometimes I feel all alone in the world.
1	.34	22	I often feel rejected.
3	-.31	134	I often feel better than others.
4	.31	3	I have always been strong and healthy.
1	.30	105	I often feel very upset.
			Factor VI
5	.71	94	My family has problems getting along.
5	.68	148	My family has many problems.
5	.62	83	My family fights a lot.
1	.51	41	Things have usually gone against me in life.
1	.44	111	My parents did not understand me.
3	.42	38	I am an unlucky person.
1	.42	103	I have many personal problems.
6	.38	151	Other people have made my life hard.
6	.38	67	People have caused me a lot of pain.
1	.37	112	Many things in my life make me angry.
4	.33	45	I have a child who is bad.
4	.31	113	My child has special problems.

Note. "Exp" = the factor with which the item was originally identified by the author of the instrument (Milner, 1986). The expected ("Exp") factors that Milner (1986) found were coded here: 1 = "Distress"; 2 = "Rigidity"; 3 = "Unhappiness"; 4 = "Problems with Child and Self"; 5 = "Problems with Family"; and 6 = "Problems with Others". "Str" = the factor structure coefficient for the item in the present study. "No." = the item number for each scored item. Weighted items responses were the basis for factor extraction.